Medical Information for Travelers

ELSEWHERE in this issue of THE WESTERN JOURNAL OF MEDICINE, Dr. Elizabeth Barrett-Connor has written an excellent and useful "Advice to Travelers." More correctly, it is an advice to physicians who take care of patients who travel.

Since tourism is one of this country's major activities,* physicians can anticipate that sooner or later they will be confronted with patients seeking advice before travel and thereafter, particularly if diseases are acquired. In regard to the latter, it becomes necessary for physicians to become familiar with the manifestations of diseases not commonly seen in this country in order to assure prompt diagnosis and appropriate treatment.

Dr. Barrett-Connor's information on immunization requirements and source of vaccines is current and concise. In addition, she correctly points out some areas in which unanimity of opinion does not exist. Passive prophylaxis for viral hepatitis, Type A with immune serum globulin is one example where there are differing opinions. Many of the data cited by Dr. Barrett-Connor and others were derived from military experiences and suggest limited risk of hepatitis until after three to six months' sojourn in foreign lands. However, the military lifestyle varies considerably from civilian activities in many respects. Of great importance in this regard is that the military most frequently provides controlled food and water for its personnel, whereas the civilian "scrounges" off the land. Because of this, and other reasons, many physicians are more liberal in their use of immune serum globulin prophylaxis of hepatitis, even in patients whose anticipated exposure is less than three to six months, particularly when their travel bypasses ordinary tourist routes.

Another area where differences in opinion exist concerns tuberculosis. Most physicians in this country would *not* recommend immunization with Bacillus Calmette-Guerin (BCG) vaccine. A much preferred approach to this problem would be the reevaluation of patients with skin testing and chest x-ray studies at intervals after return from overseas.

Dr. Barrett-Connor has expressed the view that asymptomatic infection with Giardia does not require therapy. In an infection which may produce ill-defined and vague gastrointestinal and systemic complaints instead of classic diarrheal disease, it is too difficult to define "asymptomatic." In addition, the Giardia are always potential pathogens. For these reasons, I believe physicians should consider treatment.

Many of the data presented by Dr. Barrett-Connor, and more, are summarized annually by the United States Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control, Atlanta, Georgia 30333. Physicians may obtain copies of this by contacting that agency (see Dr. Barrett-Connor's reference number 1).

LUCIEN B. GUZE, MD
Professor of Medicine
University of California, Los Angeles
Center for the Health Sciences
Chief of Staff for Research
VA Wadsworth Center, Los Angeles
Chief, Infections Diseases
Harbor General Hospital, Torrance

*According to data provided by the Passport Office of the U.S. Department of State (*Summary of Passport Statistics,* January 1975), there were 2,415,003 passports issued in 1974. Of these, 19 percent were issued to citizens living in the "Pacific Geographical Area," i.e., California, Washington, Hawaii, Oregon and Alaska. The "First Areas Designation" of these passport recipients were: Europe, 56 percent; Far East, 8 percent; North Central and South America, 21 percent; Middle East, 6 percent; Australia and Oceania, 7 percent and Africa, 2 percent. Fifty-one percent of passport recipients planned trips lasting up to one month and 11 percent planned trips for 1 to 2 months.

The Motivation and Conscience of the Physician

IN A RECENT EDITORIAL in *Science* (Changing climate for medicine. Science 188:975, Jun 6, 1975) Philip H. Abelson gives a masterly review of a "Changing Climate for Medicine." He calls attention once again to the fact that the essence of the practice of medicine is in the interaction between patient and physician. He notes that medicine will always remain an inexact science, that the best physicans are highly motivated and highly intuitive, and that much in patient care depends upon the motivation and conscience of the physician.

These are thoughts worth pondering at present, when approaches to the problems of health care are too often simplistic. Is it best to have highly motivated and conscientious physicians with relative freedom to use their knowledge, experience and, yes, their intuition, in the best interests of their patients? Or is it better to have a system of rules and restraints promulgated by various gov-

ernment agencies ruling upon what can or cannot be prescribed for what purpose, which operations are permissible under what circumstances and which are not, how long a patient may remain in a given type of health care facility with a given diagnosis and how many hours of formal continuing education a physician must have to keep his license to practice?

Would it not be much better—and much cheaper—for government and social policy to find ways to encourage and strengthen the motivation and conscience of the physician, rather than to force him into a defensive attitude where he must look upon both his patients and his government as potential enemies? After all, the attitude, motivation and conscience of physicians are essential, if not critical ingredients of both the cost and the quality of patient care. So far there is little evidence that government controls have done that much either to reduce costs or to improve quality. Maybe it is time for a more sophisticated approach.

—MSMW

Pulmonary Vascular Disease

PULMONARY EMBOLISM is a common problem often complicating the course of patients in hospital. The exact incidence is uncertain, but some studies suggest that the diagnosis may be missed in as many as 60 percent of patients dying on a general medical service. The natural history of pulmonary embolism is also uncertain, but the reported recurrence rate is as high as 20 to 40 percent in the first six months after a clinically-evident embolism. Does this recurrence rate decrease if the risk factor (such as congestive failure, contraceptive pills or long-bone factures) is eliminated? The answer to this question is critical to proper management, but data from appropriately controlled, prospective trials are not yet available.

Recurrent pulmonary embolism may present, often in relatively young, active persons, as dyspnea of unknown origin. This interesting, perplexing and theoretically preventable syndrome is elegantly reviewed in the Medical Staff Conference in this issue of THE WESTERN JOURNAL OF MEDICINE. The correct diagnosis depends on a high index of suspicion in the attending physician. If a patient has complaint of effort dyspnea (often episodic initially) that has caused a significant change of life style, a diagnosis of pulmonary embolism should be considered—particularly if none of the usual cardiopulmonary causes of dyspnea are present. Physicians should avoid attributing the dyspnea to psychoneurosis. In many patients psychoneurotic symptoms develop after being told repeatedly that "it's all in your head." Moreover, evidence of death of lung tissue, pulmonary hypertension, right ventricular enlargement and, finally, failure are all very late manifestations of this illness. A physician must not wait for these abnormalities to appear to confirm his suspicion.

Few physiological abnormalities may be present at rest, but an arterial blood sample usually will show evidence of chronic hyperventilation—decreased carbon dioxide partial pressure (PCO_2), decreased bicarbonate (HCO_3) and relatively normal hydrogen ion concentration (pH). This is a useful objective sign that the patient may have an abnormal ventilatory drive often associated with pulmonary vascular obstruction. Furthermore, although redistribution of blood flow may result in preservation of a normal carbon monoxide uptake, this is not the rule; in a series of 31 patients with documented chronic pulmonary vascular obstruction studied in our laboratory, diffusing capacity of the lung for carbon monoxide (DLCO) was decreased below 80 percent of predicted in 23 (mean DLCO: 11.8 ml/min X mmHg). DLCO can be measured quickly and noninvasively so it can be useful in screening patients in whom this diagnosis is suspected.

However, in most cases it will be necessary to evaluate these patients during exercise. During exercise, alveolar hyperventilation usually persists, arterial hypoxemia often develops, DLCO does not increase normally, while wasted ventilation increases to grossly abnormal levels, as more and more ventilation goes to poorly perfused alveoli. Pulmonary artery pressure increases to abnormal levels also, compared to that in healthy persons of comparable age, particularly when related to pulmonary blood flow.

The cause of the breathlessness in these unfortunate patients is unknown. It may be due to receptors in the walls of precapillary vessels which detect their abnormal distensibility, especially dur-

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